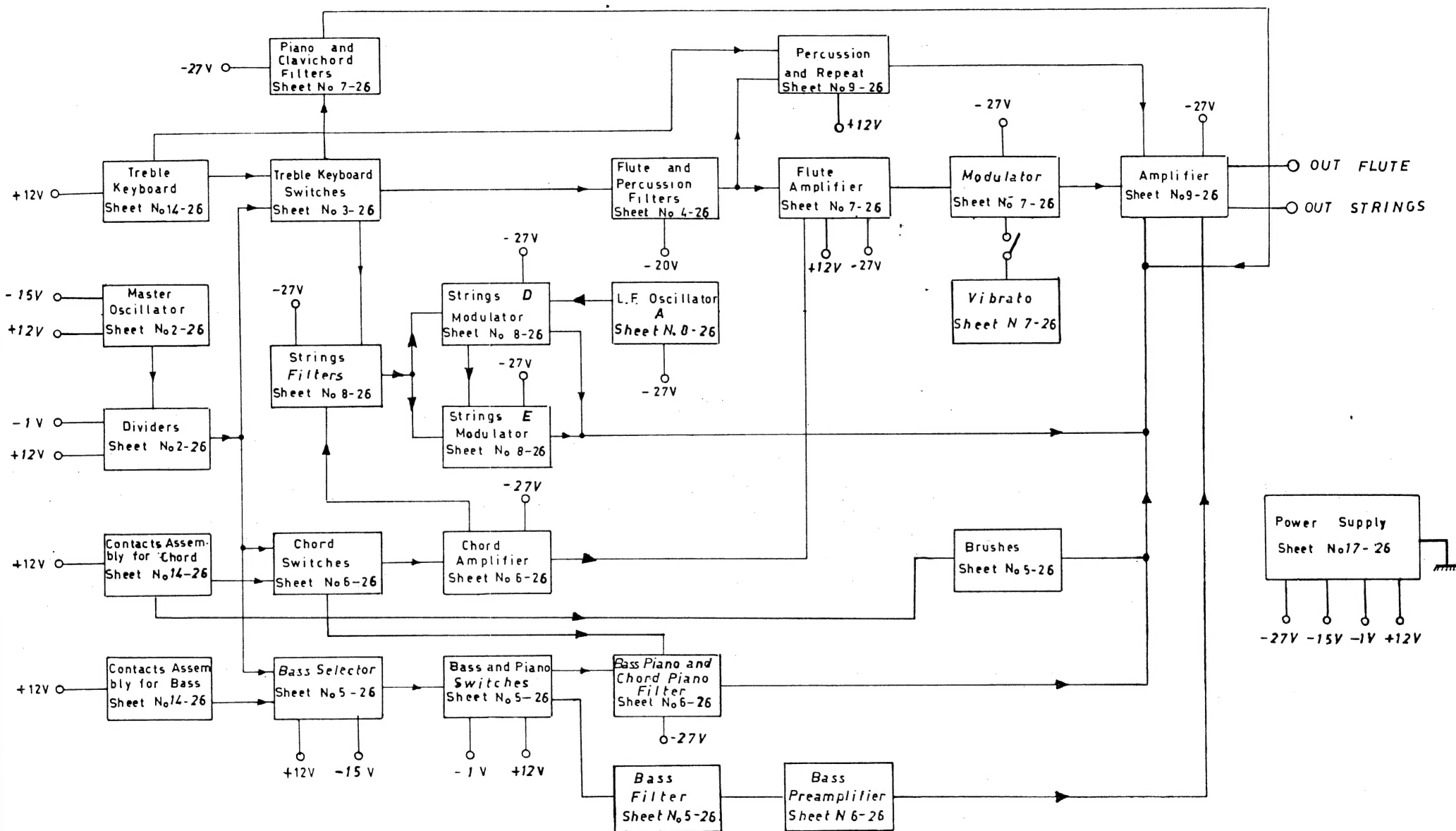


ELKA

ELKAVOX

77


schematic diagrams

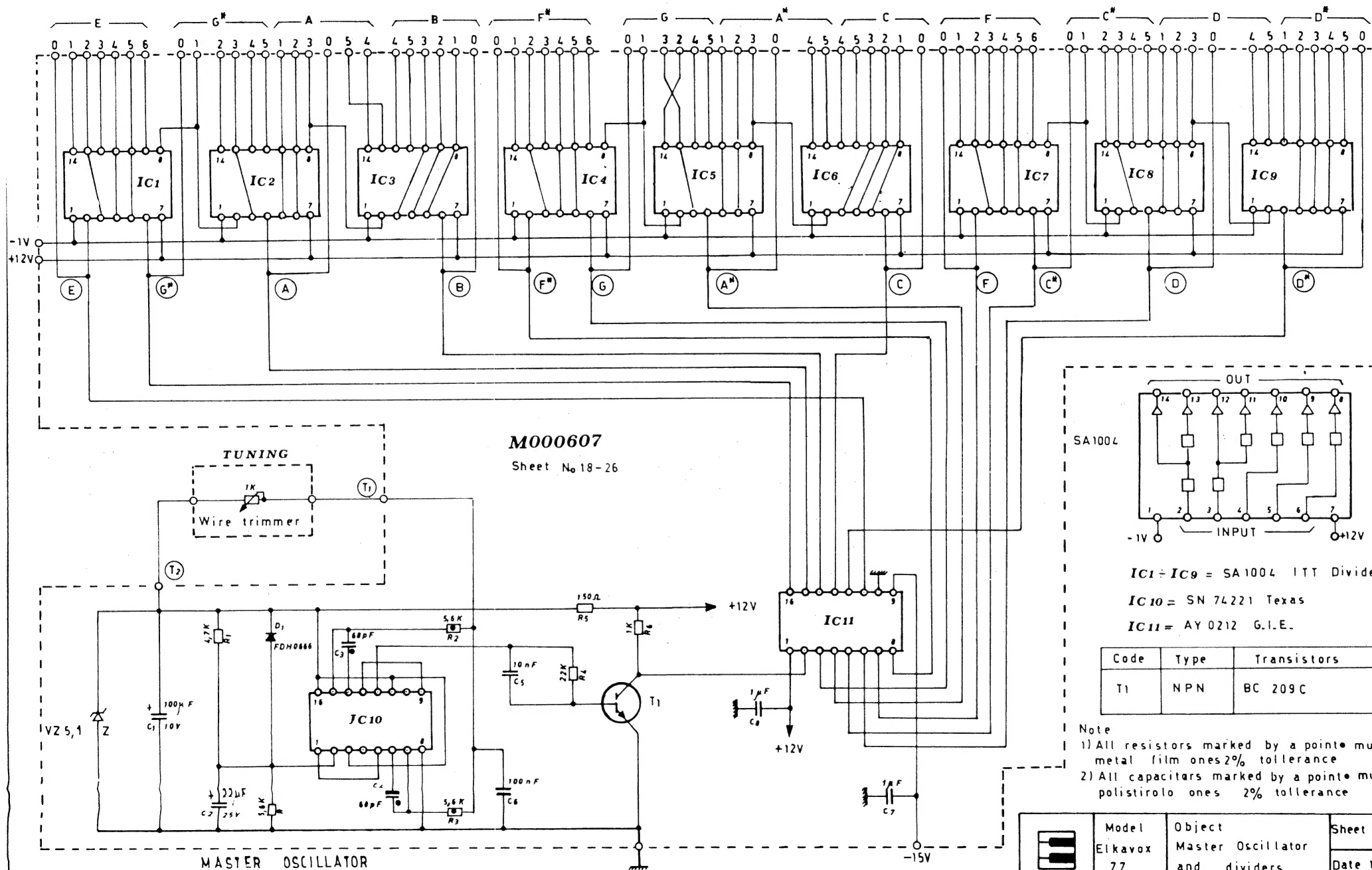


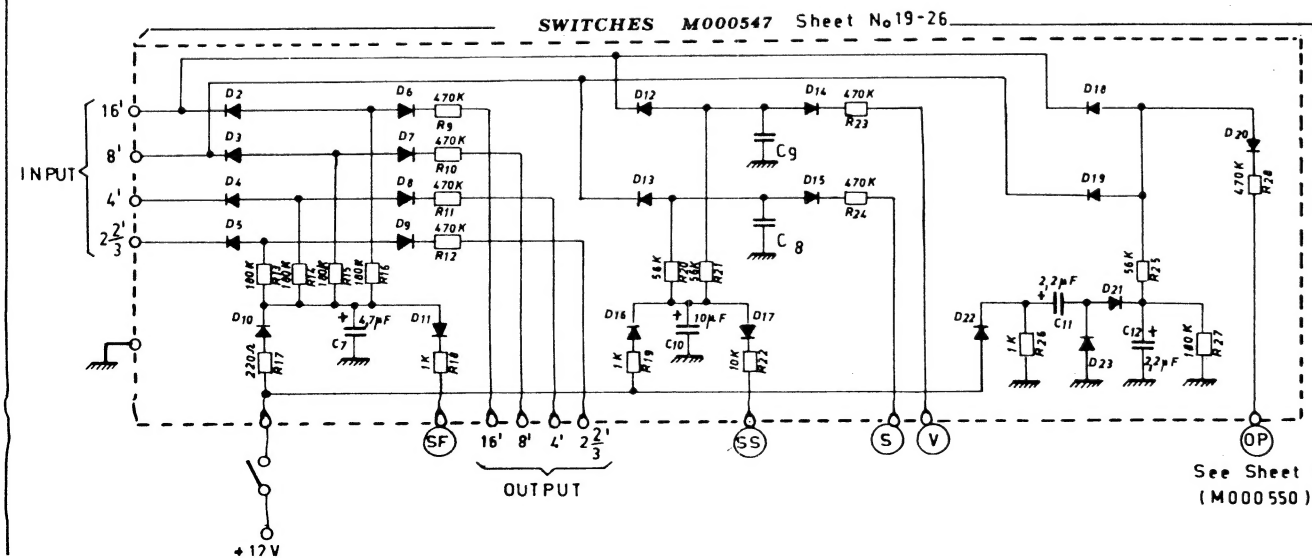
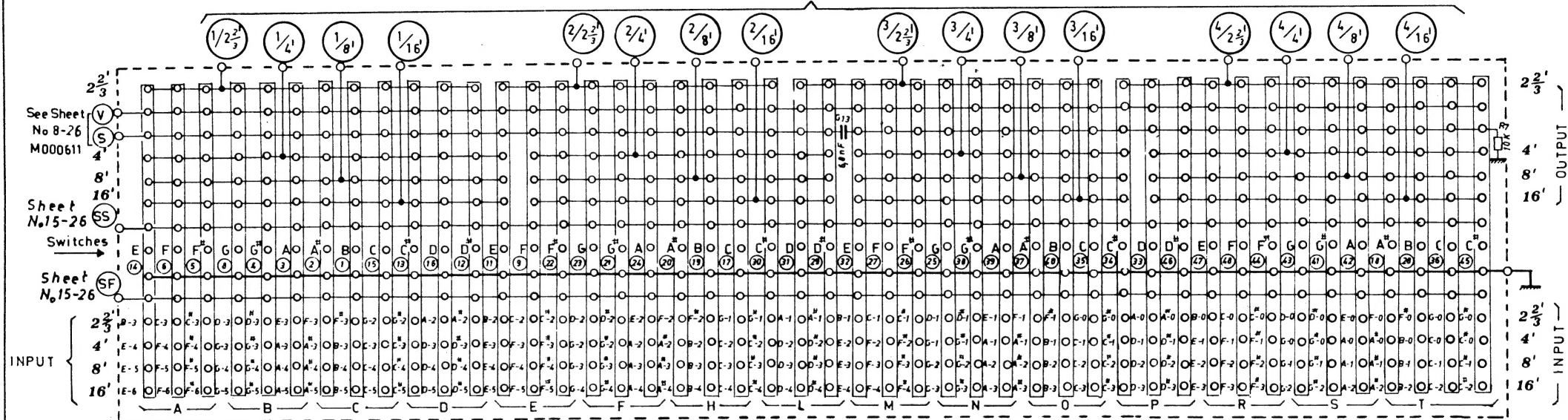
Designed by
William

Drawn by
Howe Kite

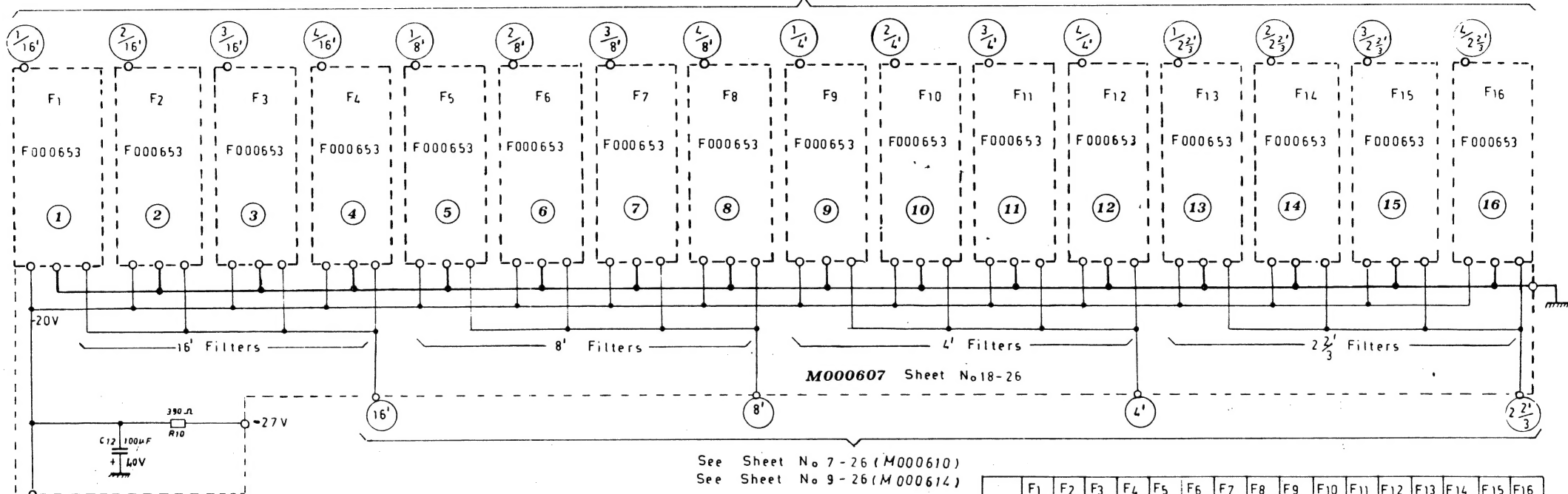
Checked by
William

	Model Elkavox 77	Object: Block Diagram	Sheet No 1-26
			Date 3-9-75

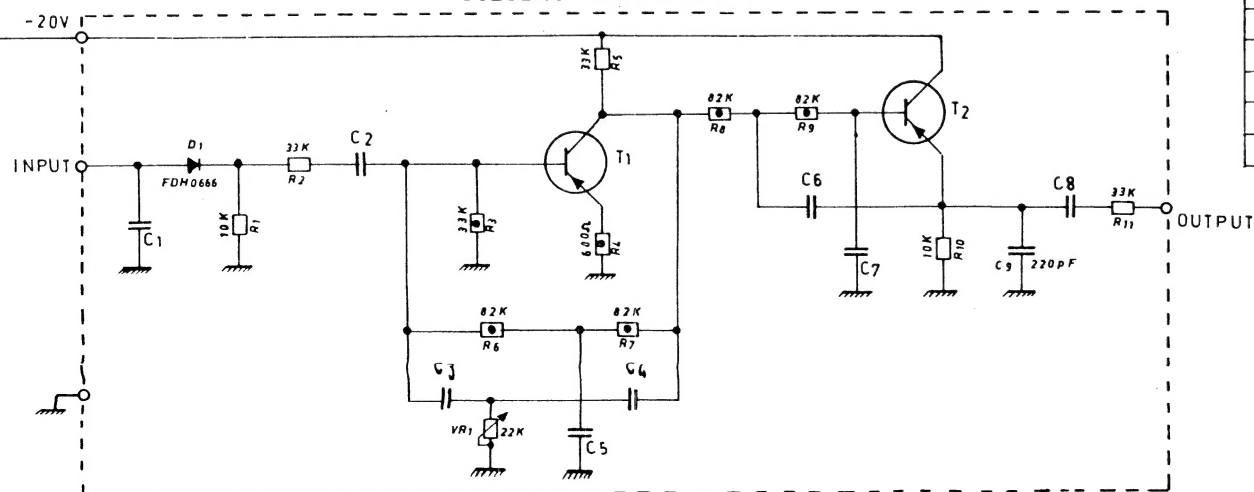


[illegible]

See Sheet No 3-26 (M000607)



FILTERS M000653 x 16 Sheet No 19-26



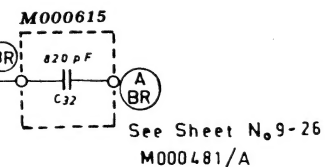
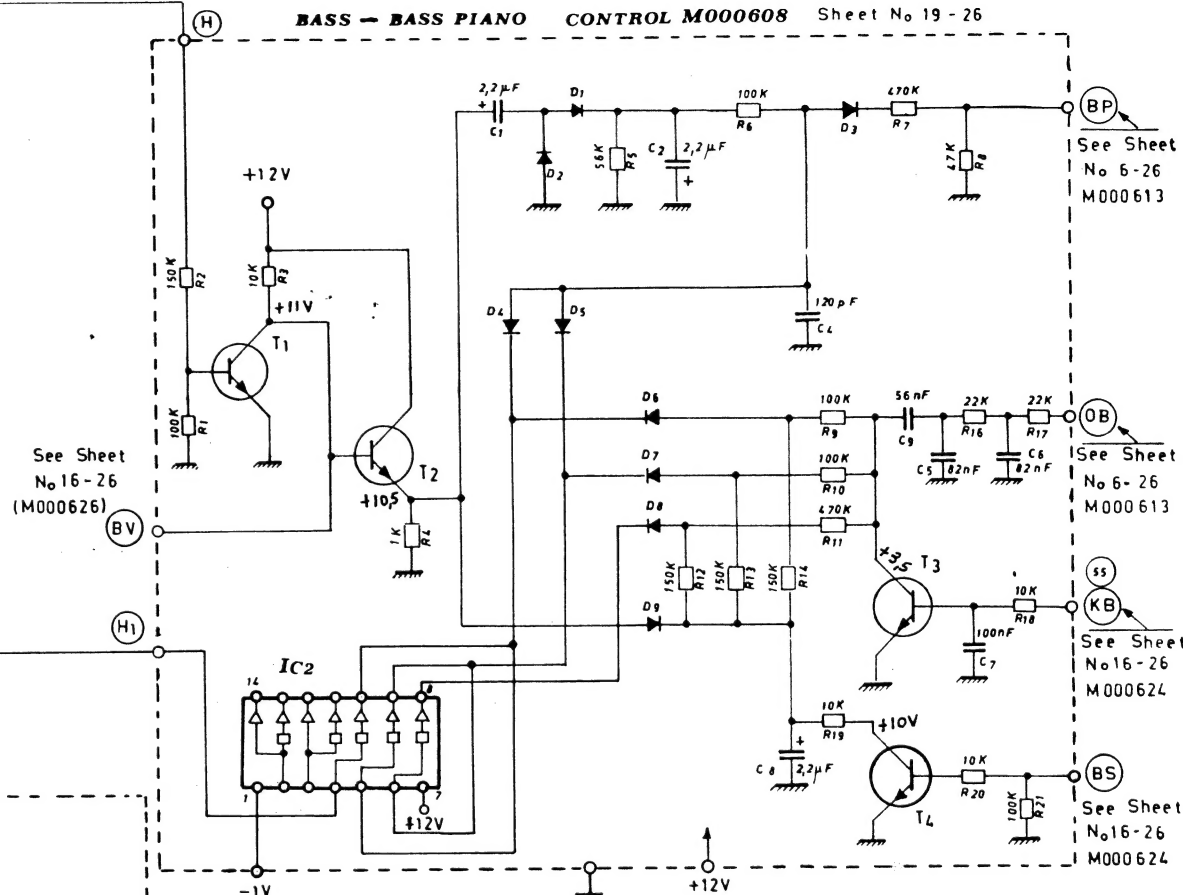
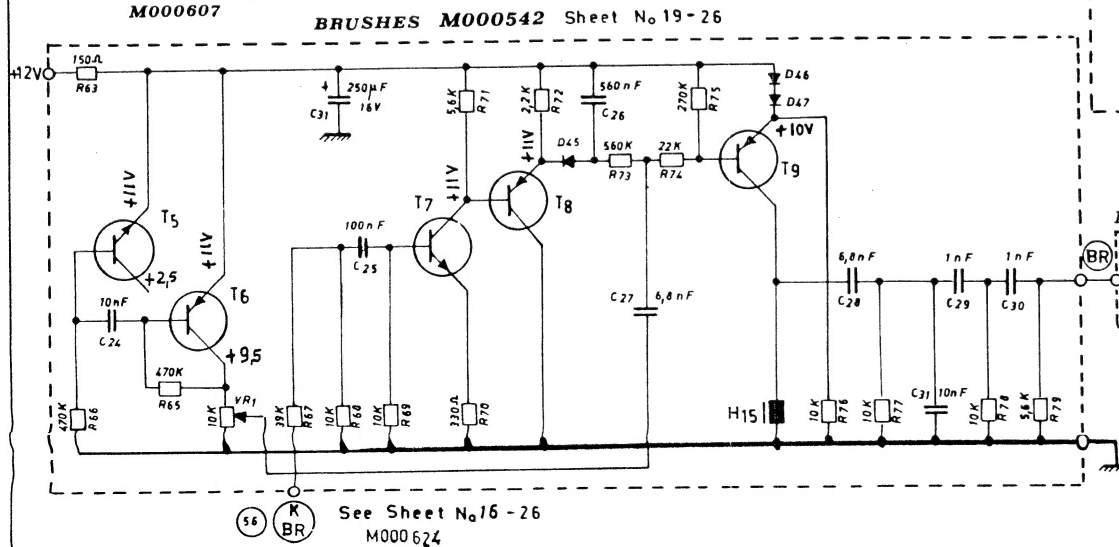
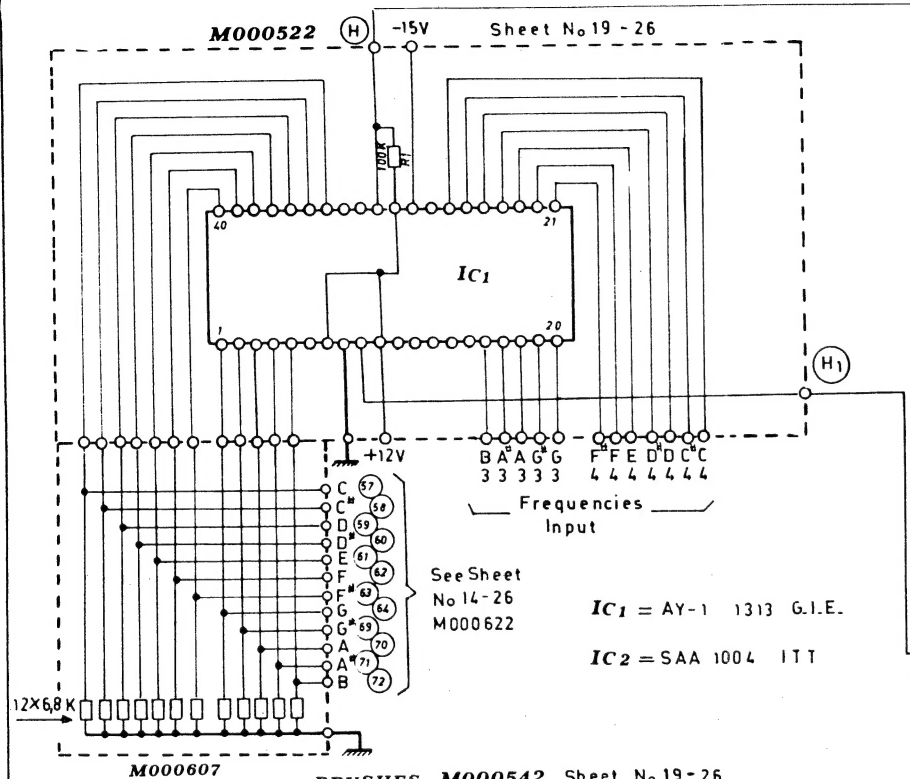
	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10	F11	F12	F13	F14	F15	F16
C1	39nF	22nF	12nF	6.8nF	27nF	15nF	8.2nF	3.9nF	15nF	8.2nF	3.9nF	2.2nF	10nF	5.6nF	2.7nF	15nF
C2	100nF	100nF	56nF	33nF	100nF	47nF	27nF	12nF	47nF	15nF	12nF	5.6nF	22nF	15nF	8.2nF	3.9nF
C3	22nF	12nF	6.8nF	3.3nF	12nF	6.8nF	3.3nF	1.8nF	6.8nF	3.3nF	1.8nF	420pF	3.9nF	1.8nF	1nF	560pF
C4	22nF	12nF	6.8nF	3.3nF	12nF	6.8nF	3.3nF	1.8nF	6.8nF	3.3nF	1.8nF	420pF	3.9nF	1.8nF	1nF	560pF
C5	33nF	15nF	6.8nF	3.3nF	10nF	6.8nF	3.3nF	1.8nF	6.8nF	3.3nF	1.8nF	420pF	3.9nF	1.8nF	1nF	560pF
C6	33nF	15nF	6.8nF	3.3nF	10nF	6.8nF	3.3nF	1.8nF	6.8nF	3.3nF	1.8nF	420pF	3.9nF	1.8nF	1nF	560pF
C7	12nF	6.8nF	3.3nF	1.8nF	6.8nF	3.3nF	1.8nF	1nF	3.3nF	1.5nF	1nF	560pF	2.7nF	1.5nF	420pF	470pF
C8	100nF	100nF	56nF	33nF	100nF	47nF	27nF	12nF	47nF	15nF	12nF	5.6nF	22nF	15nF	8.2nF	3.9nF

Code	Type	Transistors
T1-T2	PNP	BC 415 B 1TT

Note:

All resistors marked by a point • must be carbon film ones 5% tolerance

	Model Elkavox 77	Object: Flute Filters	Sheet No 4-26
			Date 2-7-76

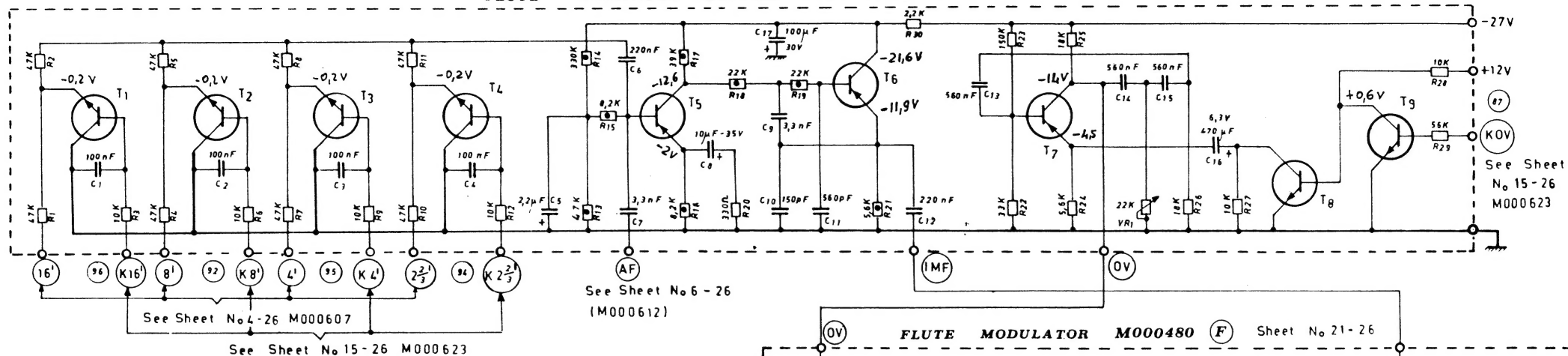


Code	Type	Transistors
T ₁ ÷ T ₄	NPN	BC 171 I.T.T.
T ₅ - T ₇	NPN	BC 209 or BC 173 I.T.T.
T ₆ - T ₈ T ₉	PNP	BC 154 Fairchild or BC 415 I.T.T.

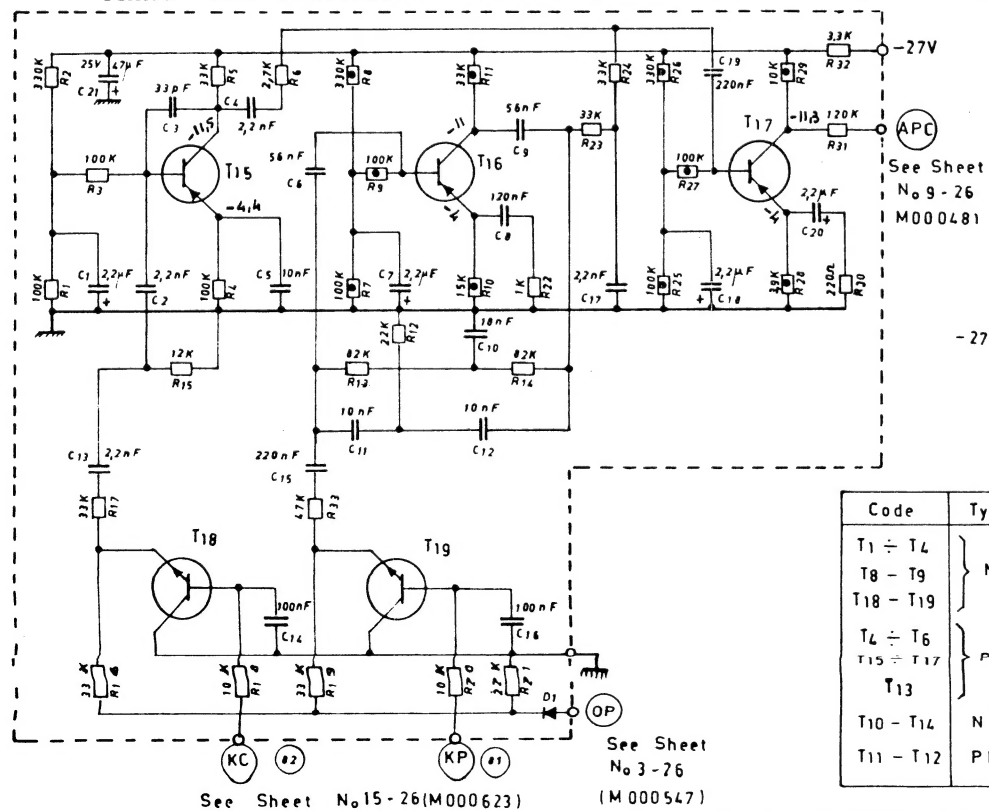
Note
All diodes are FDH 0666 Fairchild

Model	Object	Sheet No 5-26
Elkavox 77	Bass - Bass Piano and Brushes	Date 5 - 7 - 75

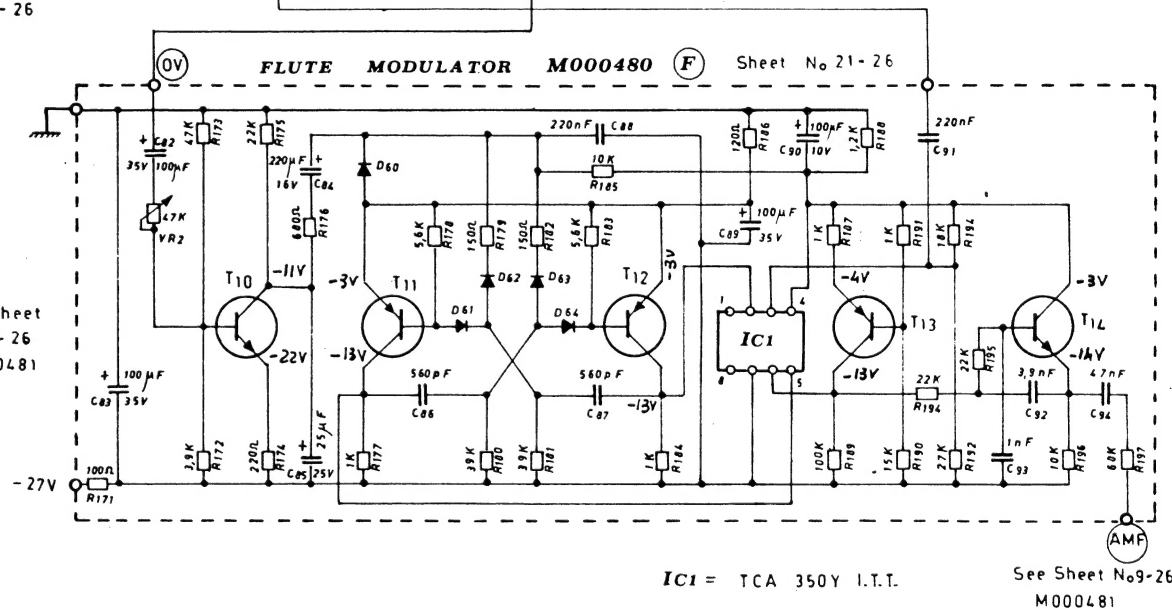
FLUTE AMPLIFIER M000610 Sheet No 22-26



PIANO AND CLAVICHORD FILTERS M000616 Sheet No 21-26



FLUTE MODULATOR M000480 (F) Sheet No 21-26



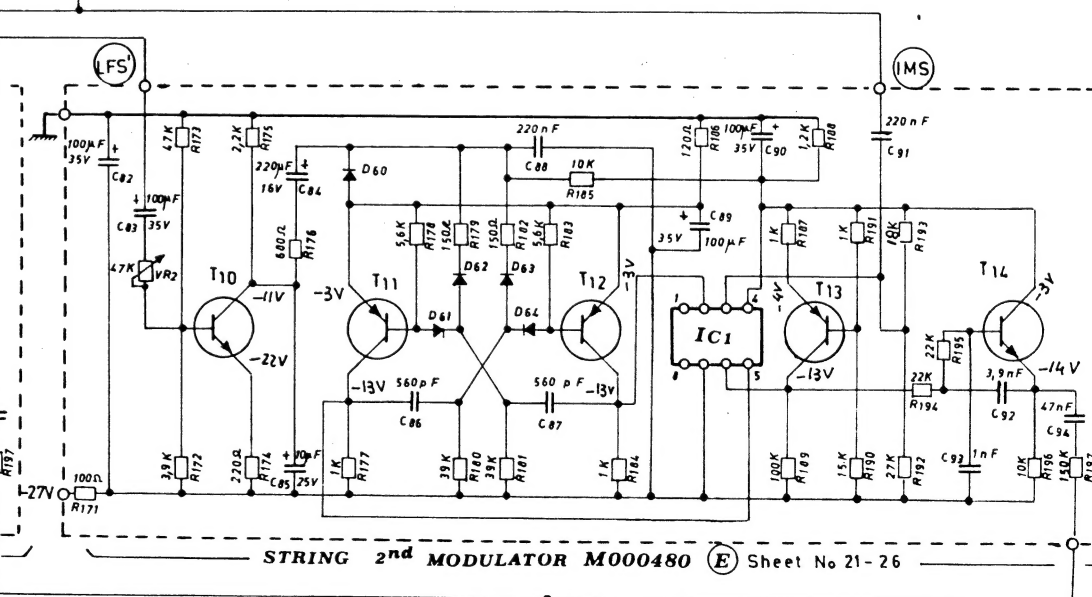
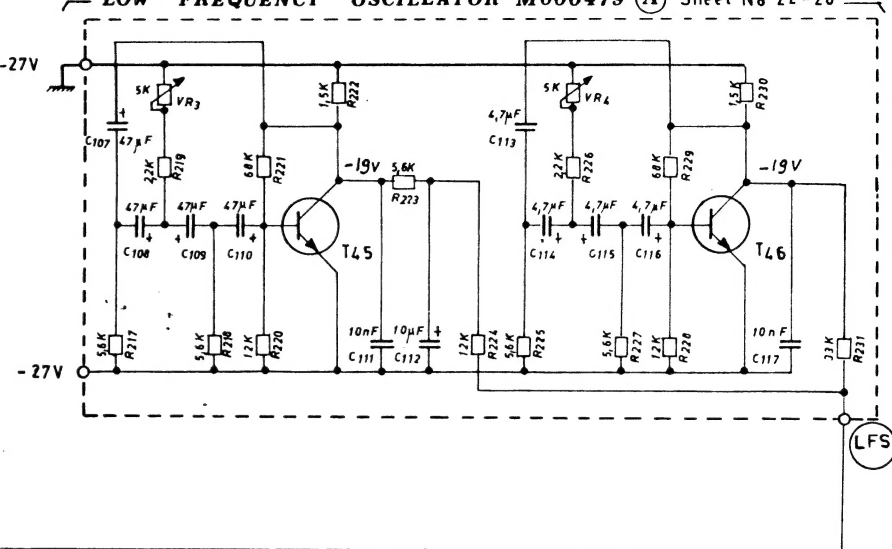
Code	Type	Transistors
T1 - T4	NPN	BC 173 I T T
T8 - T9		
T18 - T19		
T4 - T6	PNP	BC 154 Fairchild or BC 415 I T T
T15 - T17		
T13		
T10 - T14	NPN	BC 209 B
T11 - T12	PNP	BC 205 C Mistral

Note

- 1) All resistors marked by a point must be carbon film ones 5% tolerance
- 2) All diodes are FDH 0666 Fairchild

	Model	Object:	Sheet No 7-26
	Elkavox 77	Flute amplifier and Piano Clav. filters	Date 8-7-76

- LOW FREQUENCY OSCILLATOR M000479 (A) Sheet No 22-26



AMS See Sheet No 9-26 (M000481)

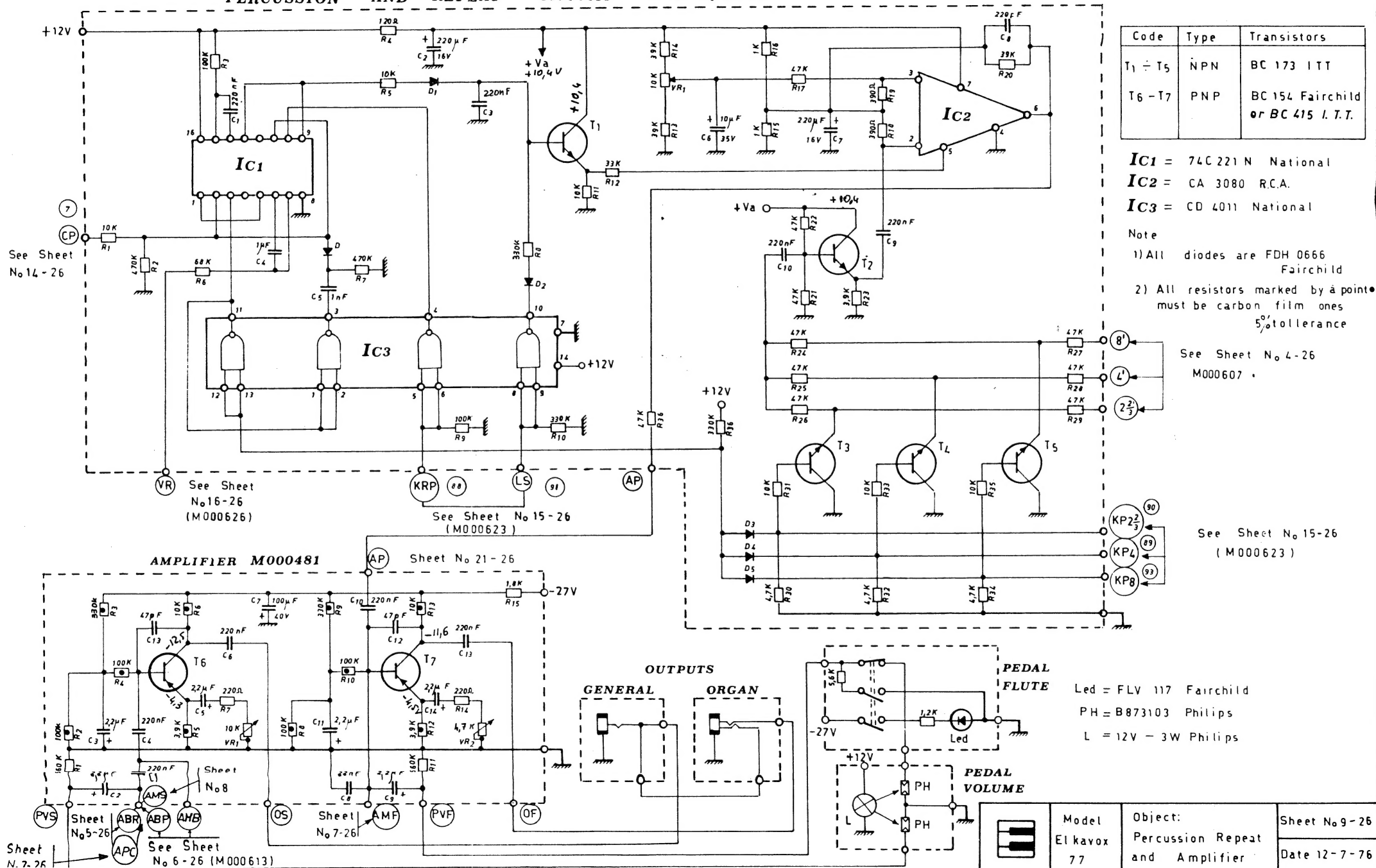
Code	Type	Transistors
T40 - T41	NPN	BC 123 1TT
T42-T44	PNP	BC 154 Fairchild or BC 415 1TT
T11 - T12	PNP	BC 205C Mistral
T13	PNP	BC 154 Fairchild or BC 415 1TT
T45-T46 T10-T14] NPN	BC 209

Note:

- 1) All resistors marked by a point • must be carbon film ones 5% tolerance.
- 2 All diodes are FDH 0566 Fairchild

$I_{C1} = ICA 350Y \quad ITT$

PERCUSSION AND REPEAT M000614 Sheet No 21- 26



TREBLE KEYBOARD

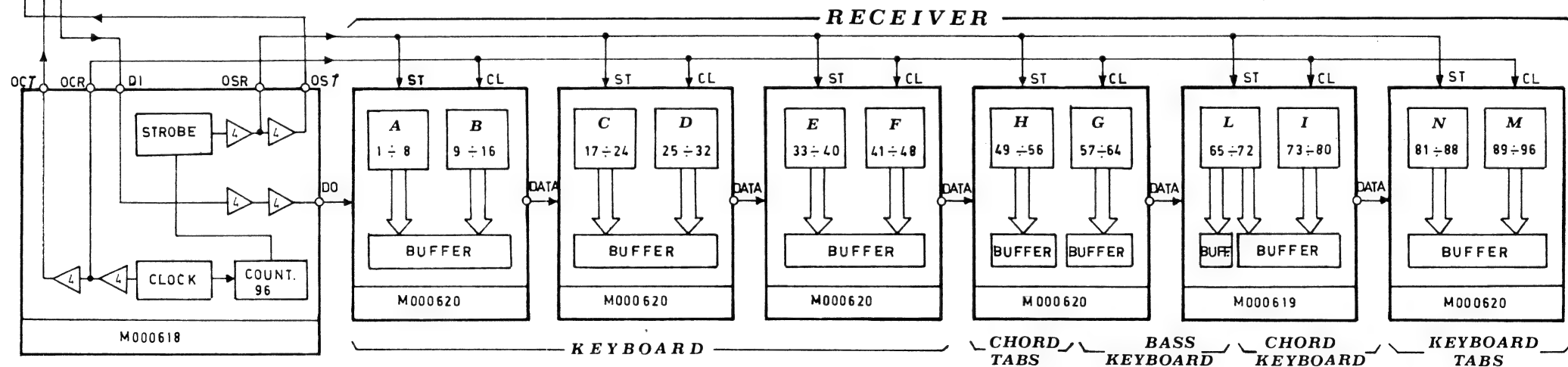
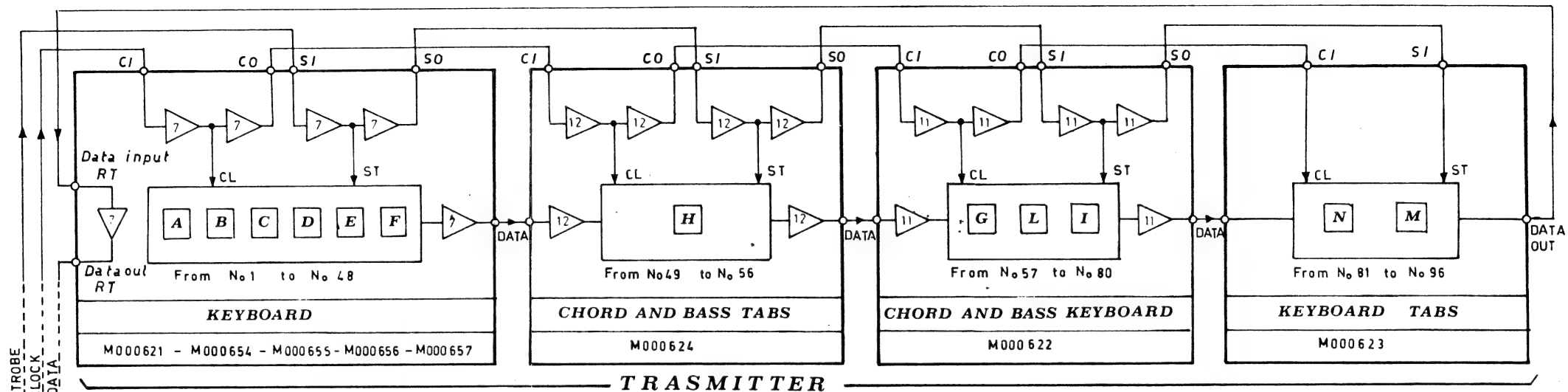
SUCCESSION OF PIANO SYSTEM NOTES					SUCCESSION OF ITALIEN SYSTEM NOTES					SUCCESSION OF FINNISH SYSTEM NOTES					SUCCESSION OF NORWEGIAN SYSTEM NOTES					SUCCESSION OF CHARLEROI SYSTEM NOTES				
NOTE	Code Transmitter P. C.	Code Receiver P. C.	Reference Integrated	Reference No in P. C.	NOTE	Code Transmitter P. C.	Code Receiver P. C.	Reference Integrated	Reference No in P. C.	NOTE	Code Transmitter P. C.	Code Receiver P. C.	Reference Integrated	Reference No in P. C.	NOTE	Code Transmitter P. C.	Code Receiver P. C.	Reference Integrated	Reference No in P. C.	NOTE	Code Transmitter P. C.	Code Receiver P. C.	Reference Integrated	Reference No in P. C.
F	M000621	M000620	A	6	F	M000657	M000620	B	14						E	M000654	M000620	B	14					
F*	M000621	M000620	A	5	F	M000657	M000620	A	6						F*	M000654	M000620	A	5	F	M000656	M000620	A	6
G	M000621	M000620	A	8	F*	M000657	M000620	A	5						G	M000654	M000620	A	6	E	M000656	M000620	B	14
G*	M000621	M000620	A	4	G	M000657	M000620	A	8	F	M000655	M000620	A	6	G	M000654	M000620	A	8	F*	M000656	M000620	A	5
A	M000621	M000620	A	3	A	M000657	M000620	A	3	G	M000655	M000620	A	8	G*	M000654	M000620	A	4	G	M000656	M000620	A	8
A*	M000621	M000620	A	2	G*	M000657	M000620	A	4	F*	M000655	M000620	A	5	A	M000654	M000620	A	3	G*	M000656	M000620	A	4
B	M000621	M000620	A	1	A*	M000657	M000620	A	2	G*	M000655	M000620	A	4	A*	M000654	M000620	A	2	A	M000656	M000620	A	3
					B	M000657	M000620	A	1	A	M000655	M000620	A	3	C	M000654	M000620	B	15	B	M000656	M000620	A	1
C	M000621	M000620	B	15	C	M000657	M000620	B	15	A*	M000655	M000620	A	2	B	M000654	M000620	A	1	A*	M000656	M000620	A	2
C*	M000621	M000620	B	13	C*	M000657	M000620	B	13	B	M000655	M000620	A	1	C*	M000654	M000620	B	13	C	M000656	M000620	B	15
D	M000621	M000620	B	16	D*	M000657	M000620	B	12	C*	M000655	M000620	B	13	D	M000654	M000620	B	16	C*	M000656	M000620	B	13
D*	M000621	M000620	B	12	D	M000657	M000620	B	16	C	M000655	M000620	B	15	D*	M000654	M000620	B	12	D	M000656	M000620	B	16
E	M000621	M000620	B	11	E	M000657	M000620	B	11	D	M000655	M000620	B	16	E	M000654	M000620	B	11	D*	M000656	M000620	B	12
					F	M000657	M000620	B	9	D*	M000655	M000620	B	12	F*	M000654	M000620	C	22	F	M000656	M000620	B	9
F	M000621	M000620	B	9	F*	M000657	M000620	C	22	E	M000655	M000620	B	11	F	M000654	M000620	B	9	E	M000656	M000620	B	11
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G	M000621	M000620	C	23	A	M000657	M000620	C	24	G	M000655	M000620	C	23	G*	M000654	M000620	C	21	G	M000656	M000620	C	21
G*	M000621	M000620	C	21	G*	M000657	M000620	C	21	F*	M000655	M000620	C	22	A	M000654	M000620	C	24	G*	M000656	M000620	C	21
A	M000621	M000620	C	24	A*	M000657	M000620	C	20	G*	M000655	M000620	C	21	A*	M000654	M000620	C	20	A	M000656	M000620	C	24
A*	M000621	M000620	C	20	B	M000657	M000620	C	19	A	M000655	M000620	C	24	C	M000654	M000620	C	17	B	M000656	M000620	C	19
B	M000621	M000620	C	19	C	M000657	M000620	C	17	A*	M000655	M000620	C	20	B	M000654	M000620	C	19	A*	M000656	M000620	C	20
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C	M000621	M000620	C	17	D*	M000657	M000620	D	29	C*	M000655	M000620	D	30	D	M000654	M000620	D	31	C*	M000656	M000620	D	30
C*	M000621	M000620	D	30	D	M000657	M000620	D	31	C	M000655	M000620	C	17	D*	M000654	M000620	D	29	D	M000656	M000620	D	31
D	M000621	M000620	D	31	E	M000657	M000620	D	32	D	M000655	M000620	D	31	E	M000654	M000620	D	32	D*	M000656	M000620	D	29
D*	M000621	M000620	D	29	F	M000657	M000620	D	27	D*	M000655	M000620	D	29	F*	M000654	M000620	D	26	F	M000656	M000620	D	27
E	M000621	M000620	D	32	F*	M000657	M000620	D	26	E	M000655	M000620	D	32	F	M000654	M000620	D	27	E	M000656	M000620	D	32
					G	M000657	M000620	D	25	F	M000655	M000620	D	27	G	M000654	M000620	D	25	F*	M000656	M000620	D	26
F	M000621	M000620	D	27	A	M000657	M000620	E	39	G	M000655	M000620	D	25	G*	M000654	M000620	E	38	G	M000656	M000620	D	25
F*	M000621	M000620	D	26	G	M000657	M000620	E	38	F*	M000655	M000620	D	26	A	M000654	M000620	E	39	G*	M000656	M000620	E	38
G	M000621	M000620	D	25	A*	M000657	M000620	E	37	G*	M000655	M000620	E	38	A*	M000654	M000620	E	37	A	M000656	M000620	E	39
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A*	M000621	M000620	E	37	C*	M000657	M000620	E	34	B	M000655	M000620	E	40	C*	M000654	M000620	E	34	C	M000656	M000620	E	35
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C	M000621	M000620	E	35	E	M000657	M000620	F	47	D	M000655	M000620	E	33	E	M000654	M000620	F	47	D*	M000656	M000620	F	46
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E	M000621	M000620	F	47	A	M000657	M000620	F	42	G	M000655	M000620	F	43	G*	M000654	M000620	F	41	G	M000656	M000620	F	43
					G*	M000657	M000620	F	41	F*	M000655	M000620	F	44	A	M000654	M000620	F	42	G*	M000656	M000620	F	41
F	M000621	M000620	F	44	A*	M000657	M000620	C	18	C*	M000655	M000620	F	41	A*	M000654	M000620	C	18	A	M000656	M000620	F	42
F*	M000621	M000620	F	43	B	M000657	M000620	D	28	A	M000655	M000620	F	42	C	M000654	M000620	E	36	B	M000656	M000620	D	28
G	M000621	M000620	F	41	C	M000657	M000620	E	36	A*	M000655	M000620	C	18	B	M000654	M000620	D	28	A*	M000656	M000620	C	18
G*	M000621	M000620	F	45	B	M000657	M000620	F	45	B	M000655	M000620	D	28	C	M000654	M000620	F	45	C	M000656	M000620	E	36

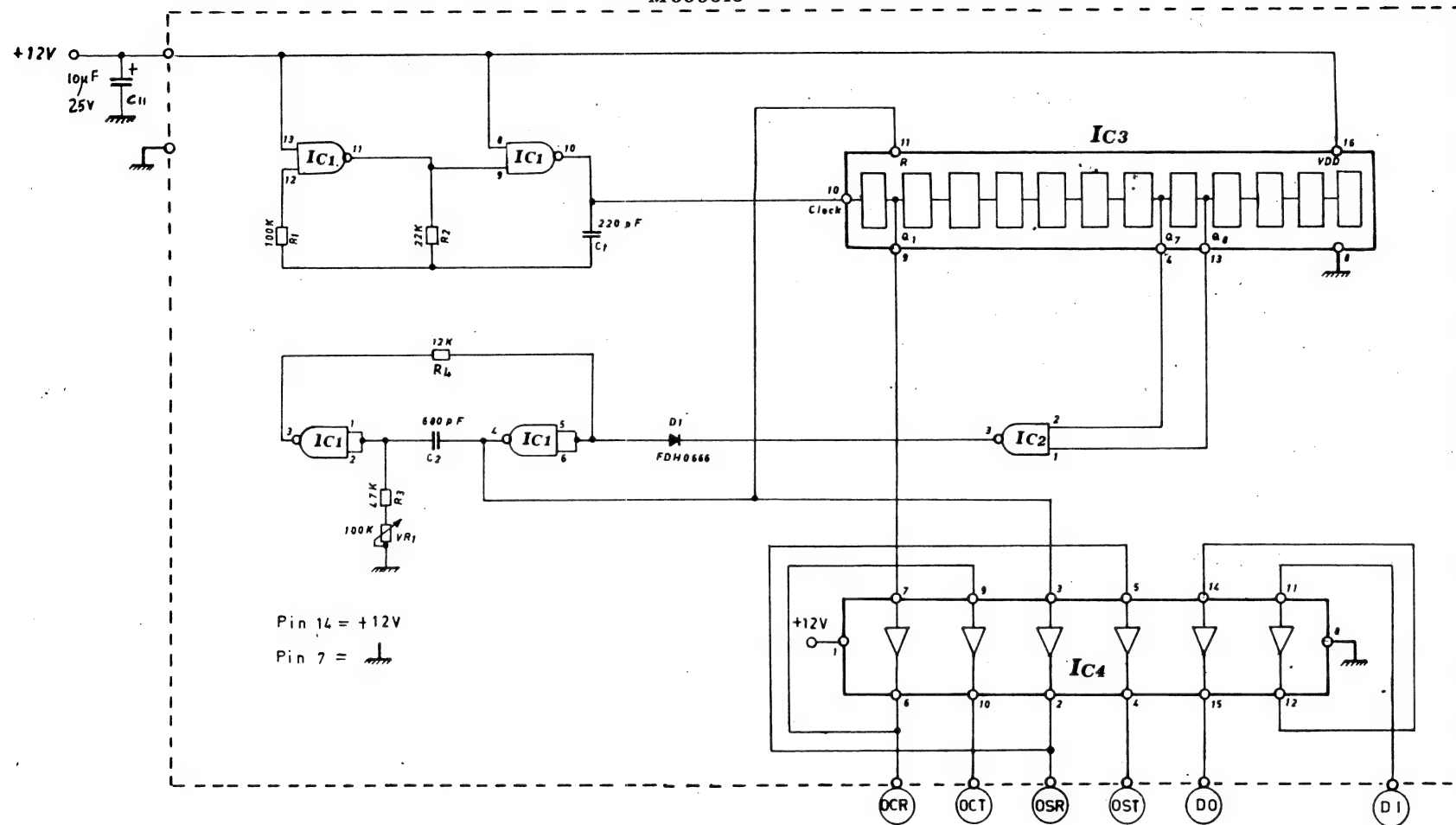
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BASS	C	M000622	M000620	G	57
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	D	M000622	M000620	G	59
	D*	M000622	M000620	G	60
	E	M000622	M000620	G	61
	F	M000622	M000620	G	62
	F*	M000622	M000620	G	63
	G	M000622	M000620	G	64
	G*	M000622	M000619	L	69
	A	M000622	M000619	L	70
CHORD	A*	M000622	M000619	L	71
	B	M000622	M000619	L	72
	C	M000622	M000619	I	73
	C*	M000622	M000619	I	74
	D	M000622	M000619	I	75
	D*	M000622	M000619	I	76
	E	M000622	M000619	I	80
	F	M000622	M000619	I	79
	F*	M000622	M000619	I	78
	G	M000622	M000619	I	77
	G*	M000622	M000619	L	65
	A	M000622	M000619	L	66
	A*	M000622	M000619	L	67
	B	M000622	M000619	L	68

	Code Transmitter P. C.	Code Receiver P. C.	Reference Integrated	Reference No in P. C.
CHORD PIANO (KCHP)	M000624	M000620	H	51
CHORD FLUTE (KCF)	M000624	M000620	H	52
BRUSH (BR)	M000624	M000620	H	56
BASS (KB)	M000624	M000620	H	55
BASS PIANO (KBP)	M000624	M000620	H	54
BASS SUSTAIN (BS)	M000624	M000620	H	53
CHORD SUSTAIN (KSC)	M000624	M000620	H	49
CHORD STRINGS (KCS)	M000624	M000620	H	50
STRINGS (KS)	M000623	M000620	N	84
REPEAT (KRP)	M000623	M000620	N	88
VIBRATO (KOV)	M000623	M000620	N	87
VIOLONCELLO (KV)	M000623	M000620	N	85
PIANO (KP)	M000623	M000620	N	81
CLAVICHORD (KC)	M000623	M000620	N	82
FLUTE 16' (K16)	M000623	M000620	M	96
FLUTE 8' (K8)	M000623	M000620	M	92
FLUTE 4' (K4)	M000623	M000620	M	95
FLUTE 2 1/2' (K2 1/2)	M000623	M000620	M	94
PERC. 8' (KP8)	M000623	M000620	M	93
PERC. 4' (KP4)	M000623	M000620	M	89
PERC. 2 1/2' (KP2 1/2)	M000623	M000620	M	90
PERC. LONG SHORT (LS)	M000623	M000620	M	91
PERCUSSION (CP)	M000621	M000620	A	7
I	-	-	-	10
II	-	-	-	83
III	-	-	-	86



Model
Elkavox





OCR = Out Clock Receiver
OCT = Out Clock Transmitter
OSR = Out Strobe Receiver
OST = Out Strobe Transmitter
DO = Data Out
DI = Data Input

IC1 = IC2 = CD 4011 National

IC3 = CD 4040 R.C.A.

IC4 = F4050 Fairchild

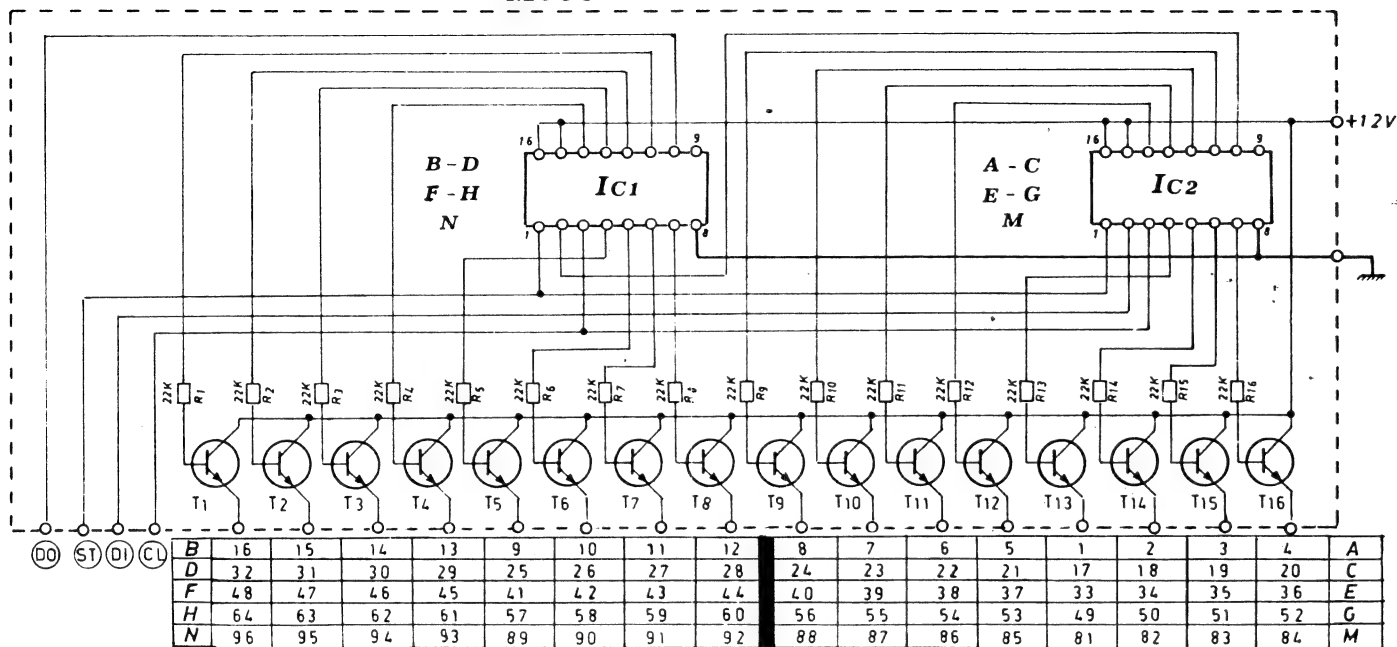


Model
Elkavox
77

Object:
Clock Transmitter

Sheet No12-26

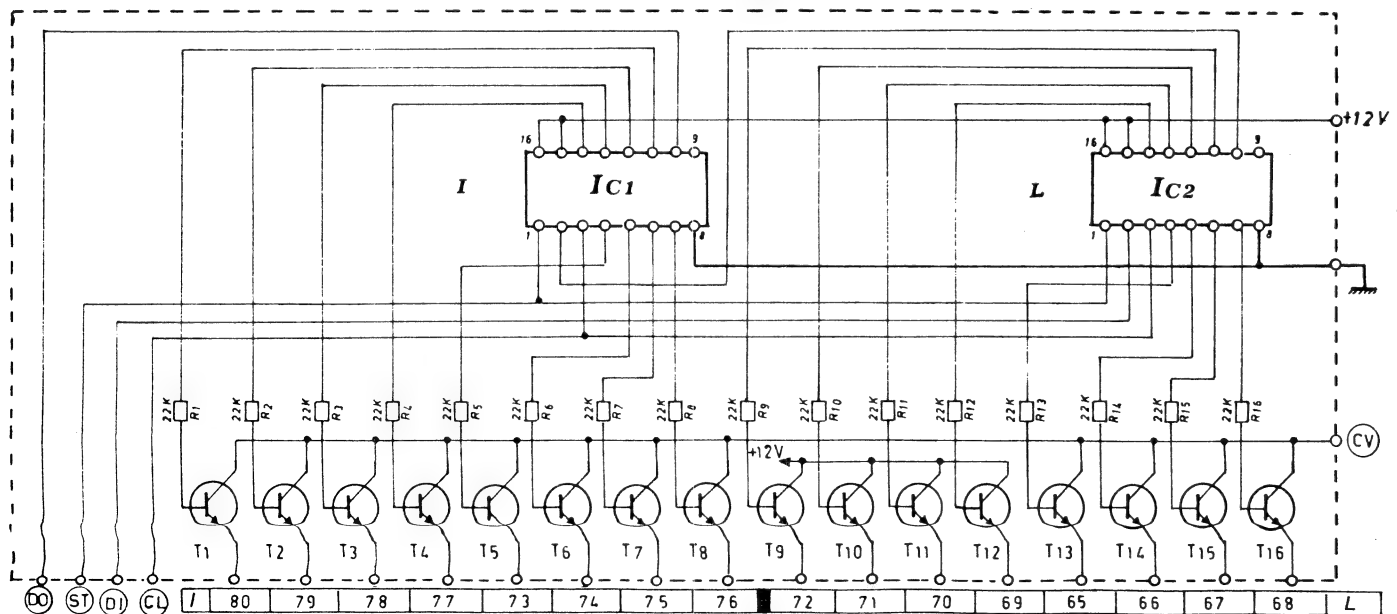
Date 14-7-76



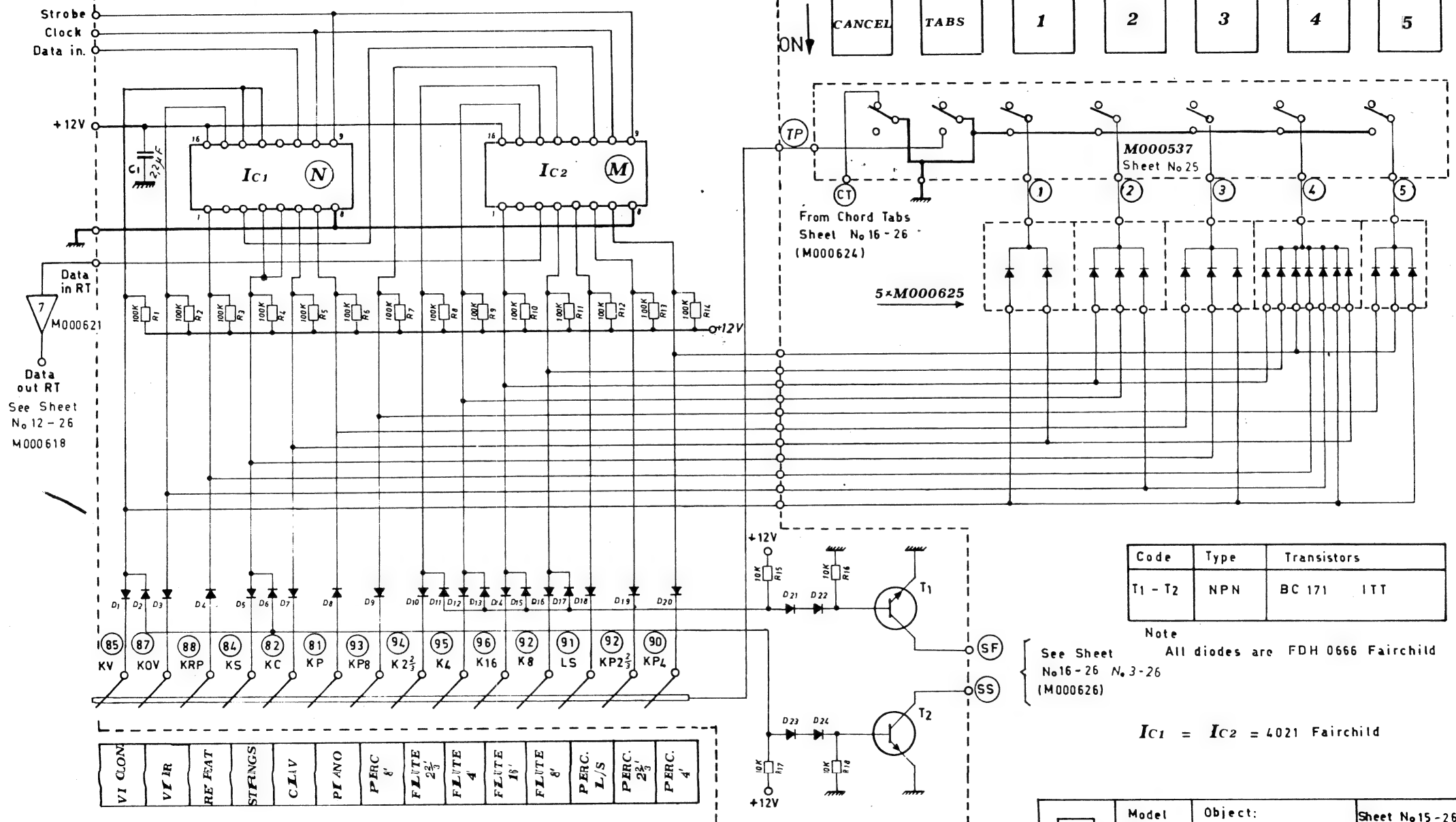
Code	Type	Transistors
T ₁ - T ₁₆	NPN	BC 209

IC1 = 4094 Fairchild
IC2 = 4094 Fairchild

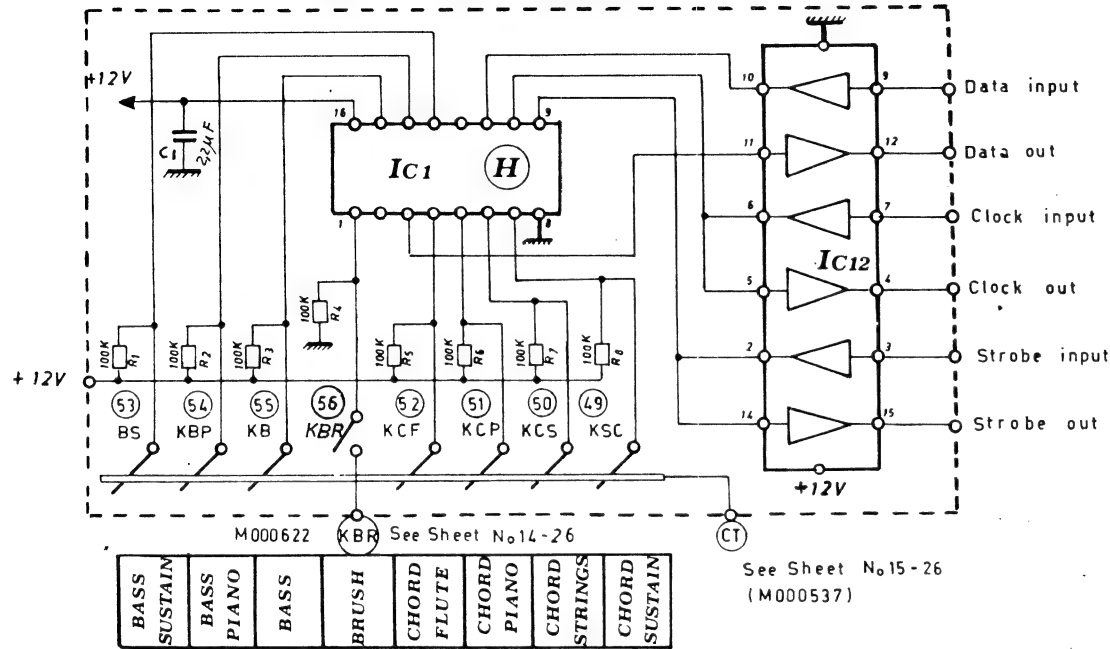
DO = Data Output
DI = Data Input
ST = Strobe
CL = Clock



See Sheet
No 16 - 26
M000626



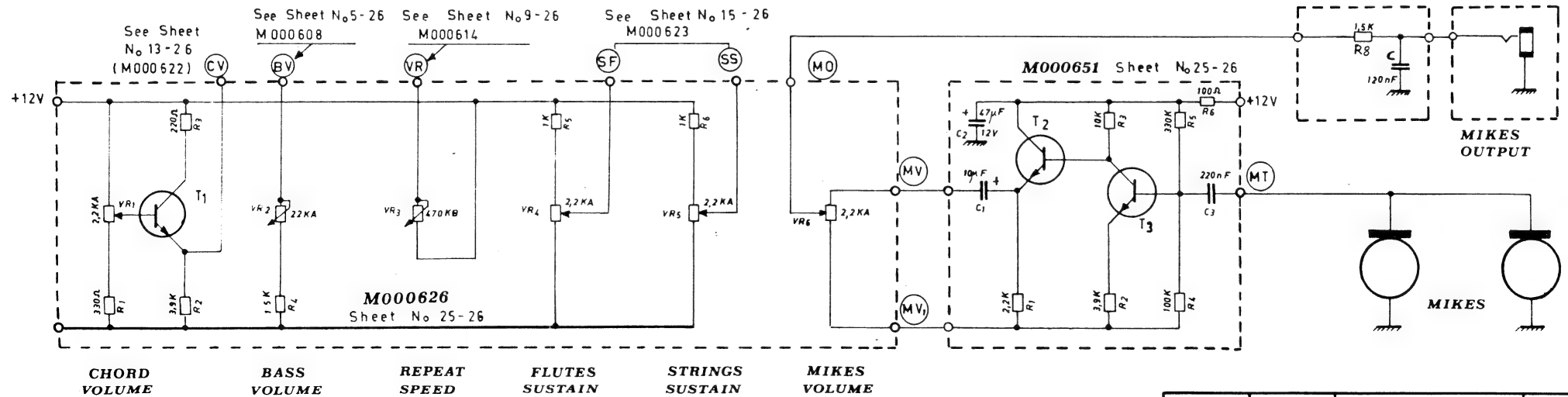
CHORD TABS M000624 Sheet No 25 - 26



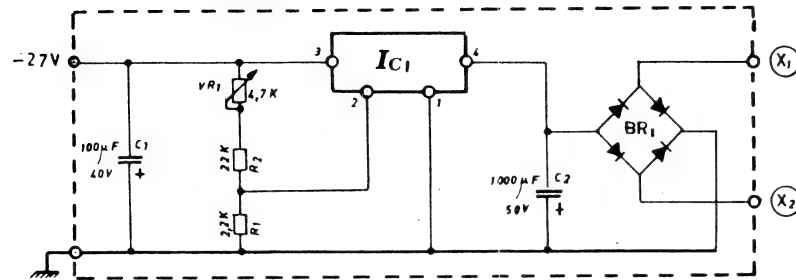
Code	Type	Transistors
T ₁	NPN	BC 286 S.G.S.
T ₂ - T ₃	NPN	BC 173 ITT

IC1 = 4021 Fairchild

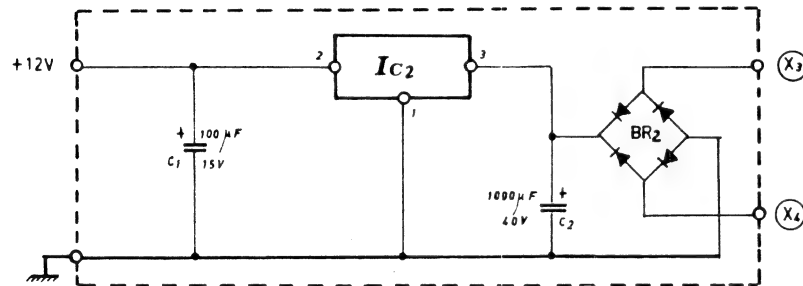
IC12 = 4050 Fairchild



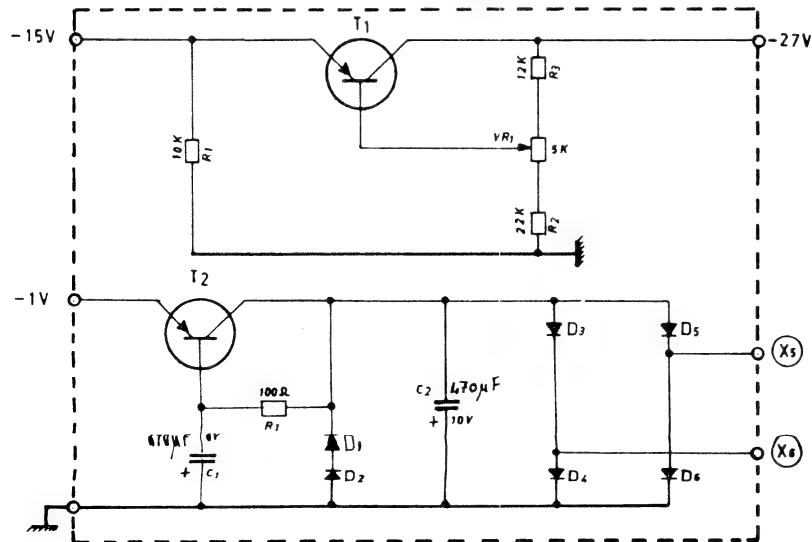
POWER SUPPLY M000485 Sheet No 26-26



POWER SUPPLY M000485 / A Sheet No 26-26



POWER SUPPLY M000609 Sheet No 26-26



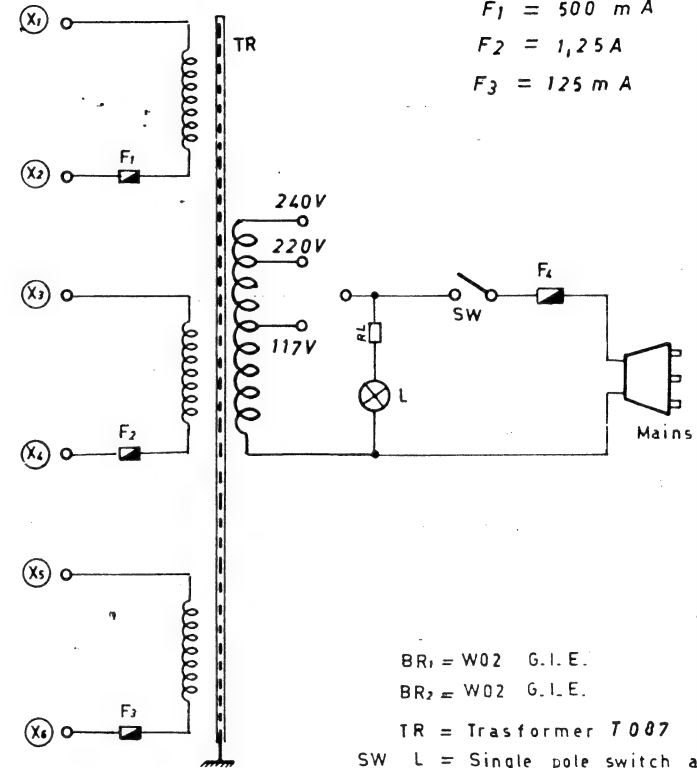
Mains 240 - 220V Fuse $F_4 = 500\text{mA}$

Mains 117 Fuse $F_4 = 1\text{A}$

$F_1 = 500\text{mA}$

$F_2 = 1,25\text{A}$

$F_3 = 125\text{mA}$



$BR_1 = W02$ G.I.E.

$BR_2 = W02$ G.I.E.

TR = Transformer T007

SW L = Single pole switch and pilot light

Code	Type	Transistors
T1	P.N.P.	BC 415 C Fairchild
T2	P.N.P.	BC 287 S.G.S.

$D_1 = D_2 = FDH 0666$ Fairchild

$D_3 \div D_6 = 1N4001$ I.T.I.

$IC_1 = \mu A79\text{MG}$ Fairchild

$IC_2 = \mu A7812\text{UC}$ Fairchild



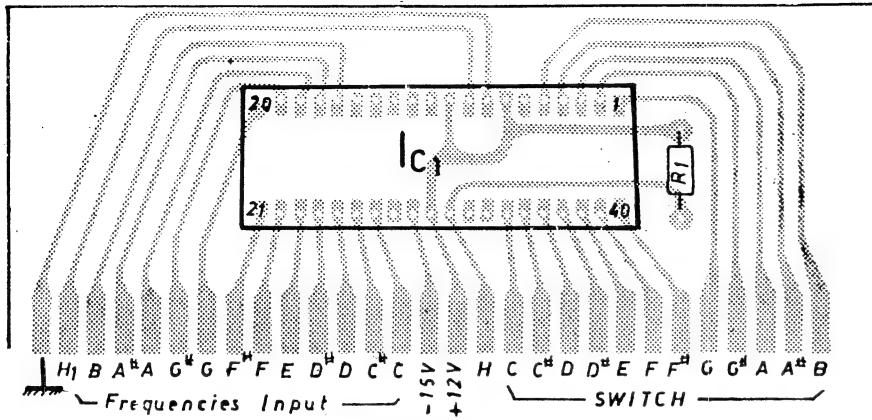
Model
Elkavox
77

Object:
Power Supply

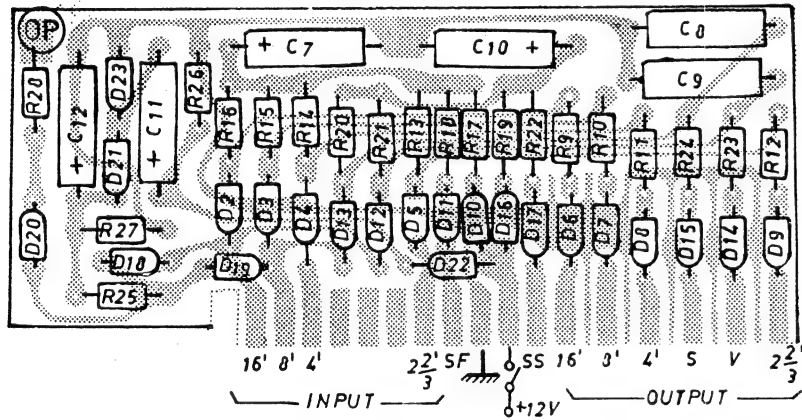
Sheet N 17-26

Date 30-8-76

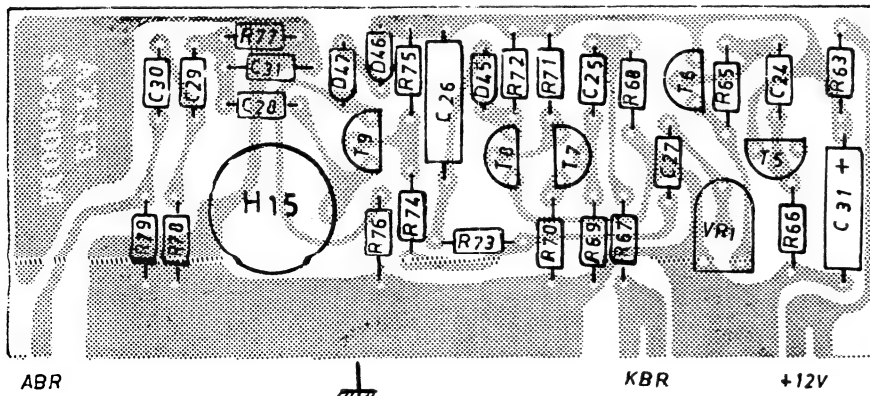
M000522



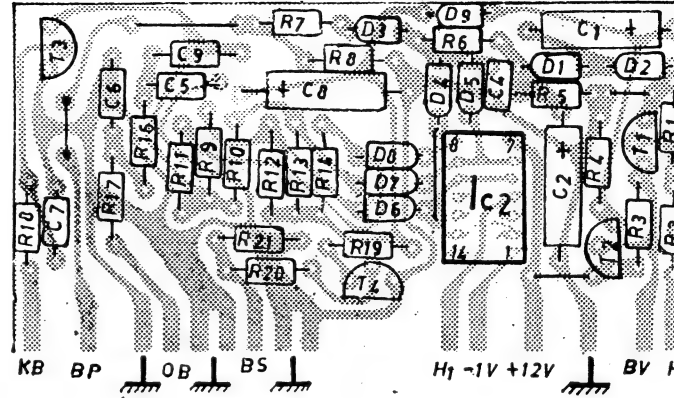
M000547



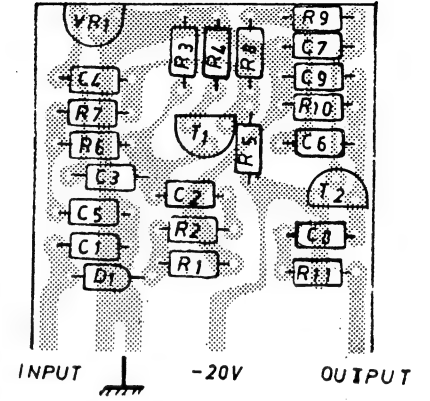
M000542



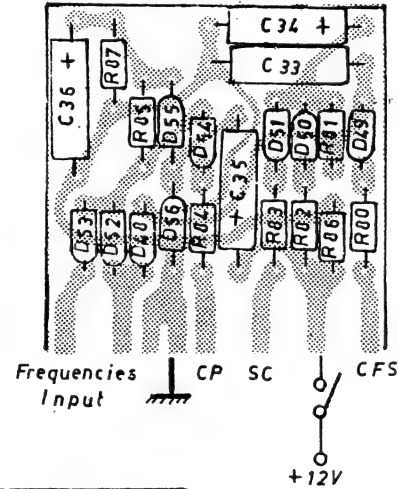
M000608



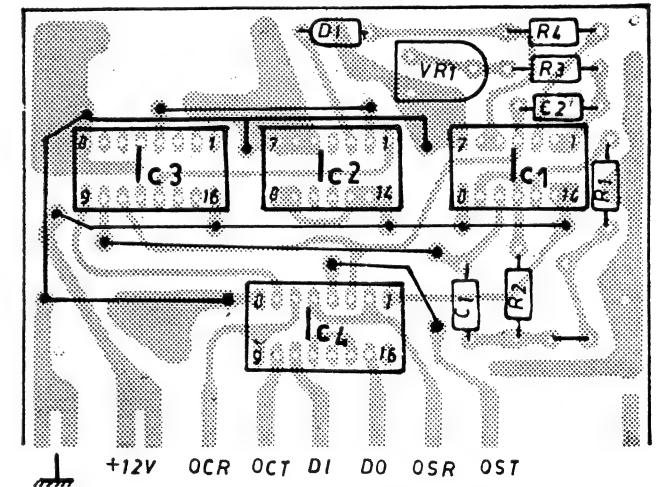
M000653



M000524



M000618



Piano and Clavichord Filters

M 000614

Sheet No 9 - 26

Strings
Modulator

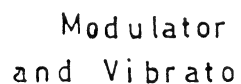
Sheet No 8-26

Strings Modulator

Sheet No 8-26

Amplifier

Sheet No 9-26



Sheet No 7-26

Flute Amplifier

M000610

Sheet No 7 - 26

Low Frequency Oscillator

Sheet No 8-26

Strings Amplifier

M000611

Sheet No 8-26

Chord Amplifier

M000612

Sheet No 6-26

Bass Piano
Bass - Chord
Filters

M000613

Sheet No 6-26




Model
ELKA VOX
77


Object	Assembly of Printed Circuit
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Sheet No 20-26

Date 31-8-76


КР КС ОР

AP 0 4 2² 3  VR LS KKP2² 3 KP0 KP4 +12V CP KRP

LFS'  IMF - IMS
AMF - AMS
-27V
OV - LFS

[illegible]

PVS AMB AMS
 ABR
 ABP
 APC

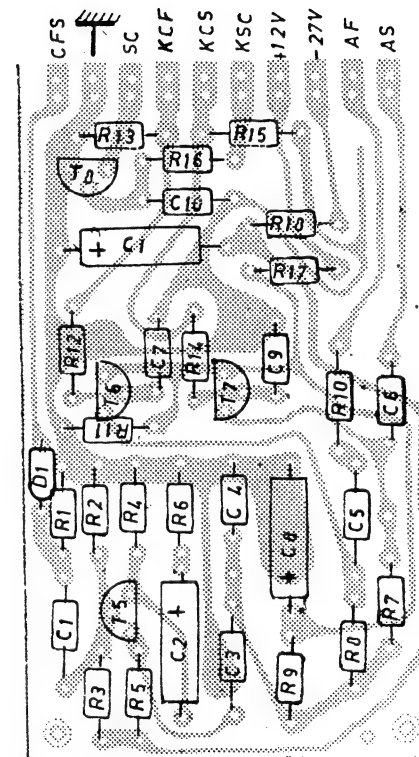
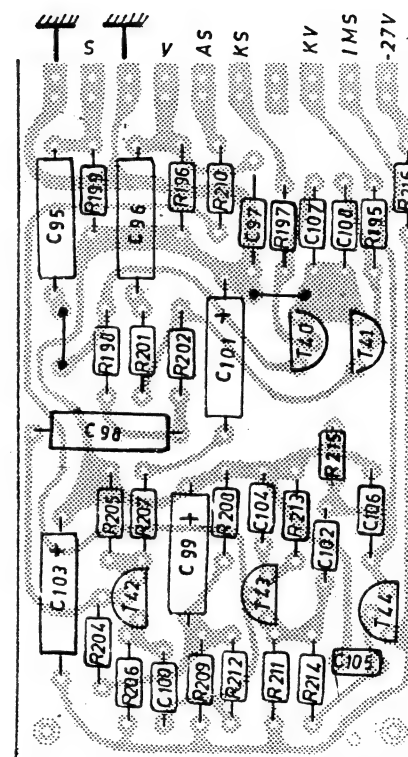
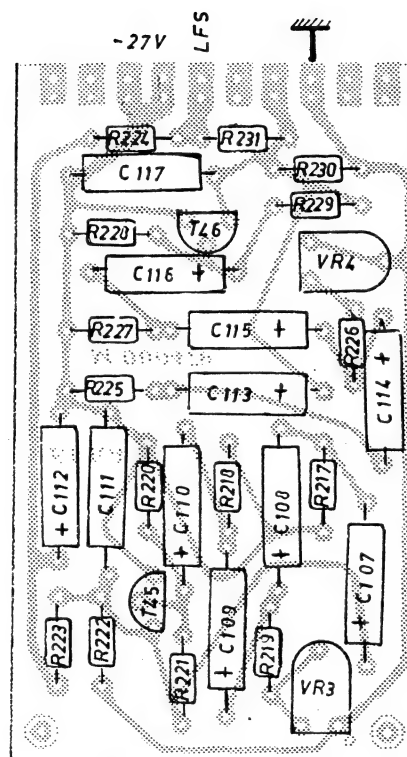
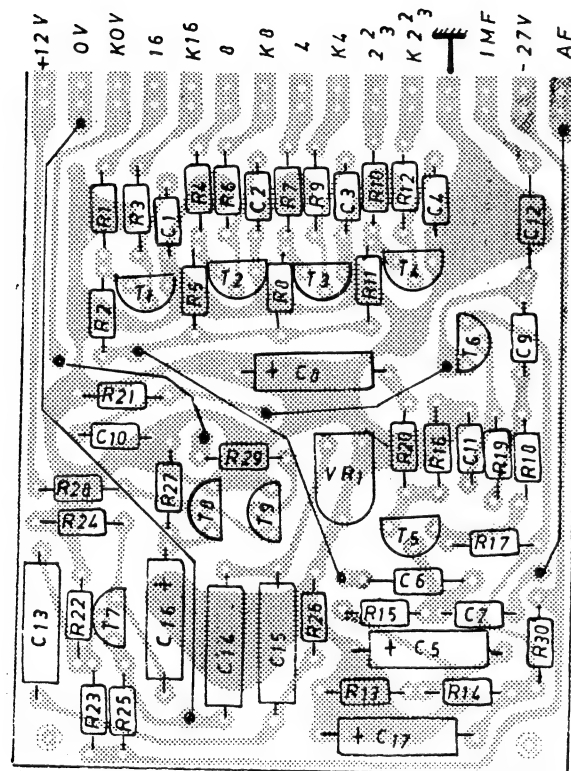
- 27V OF  AP AMF PVF

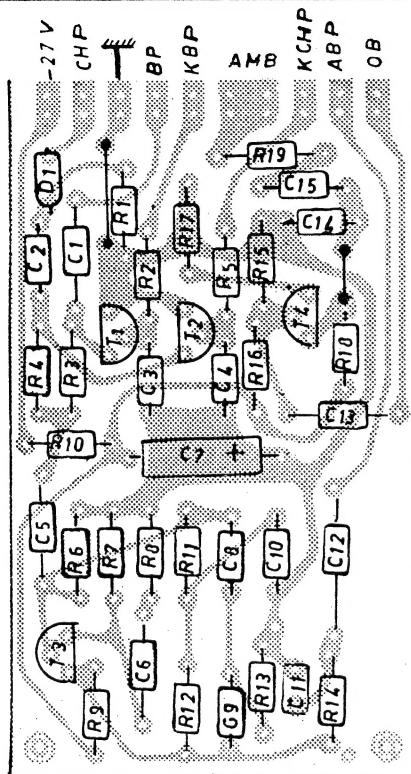


Object,
Assembly of
Printed Circuit

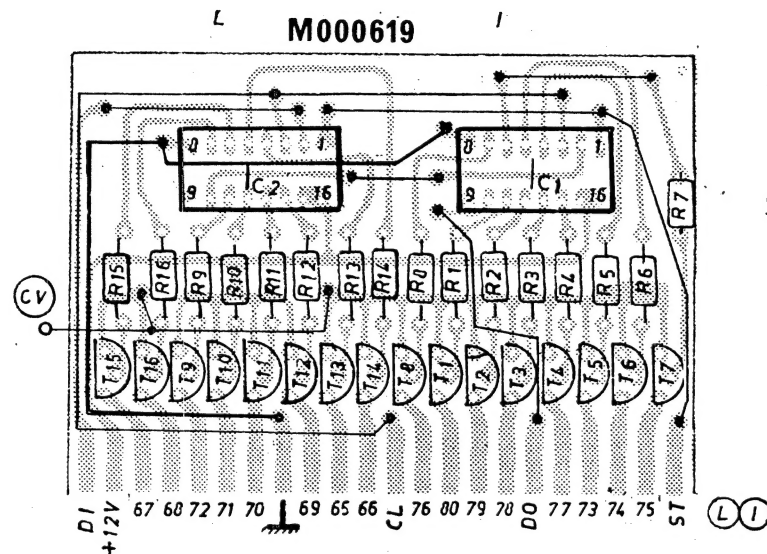
Sheet No 21-26

Date 31-8-76

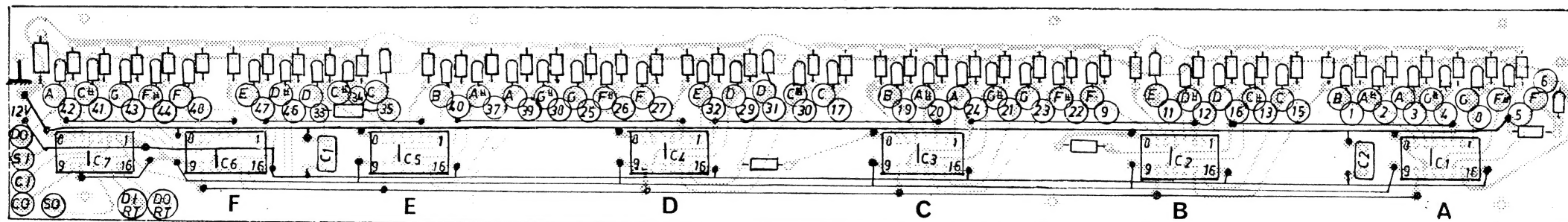
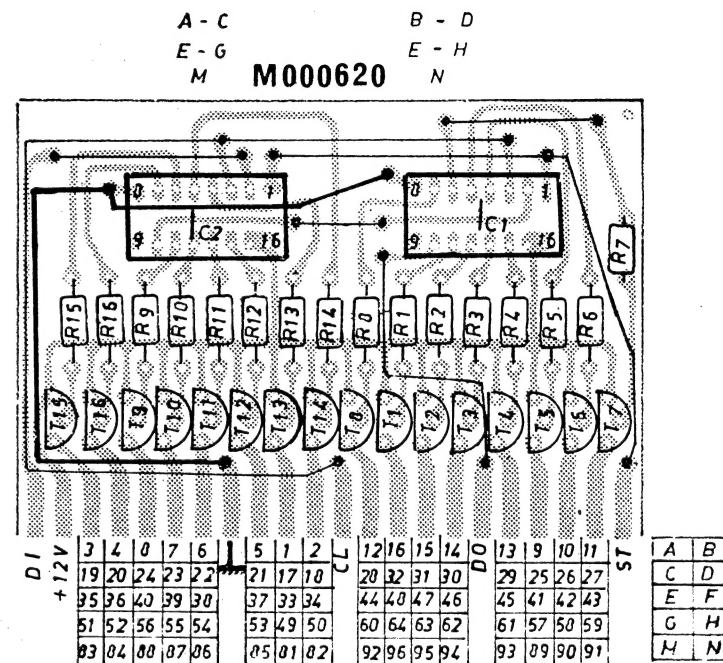




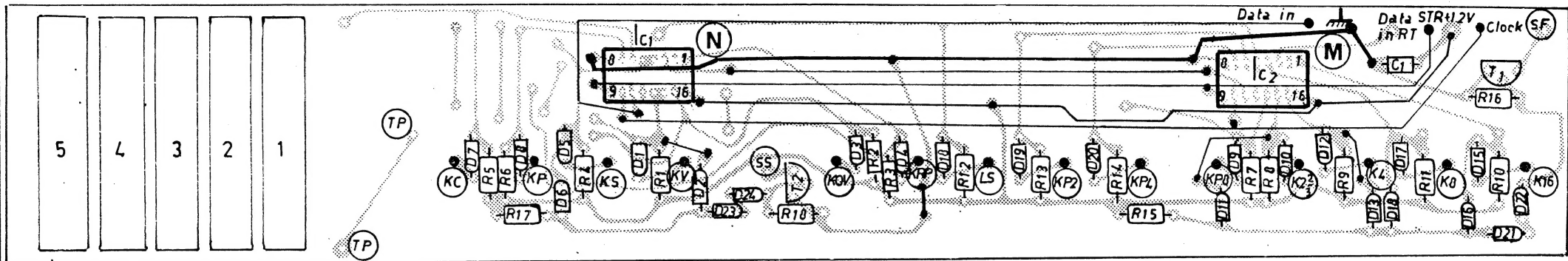
M000613



M000621



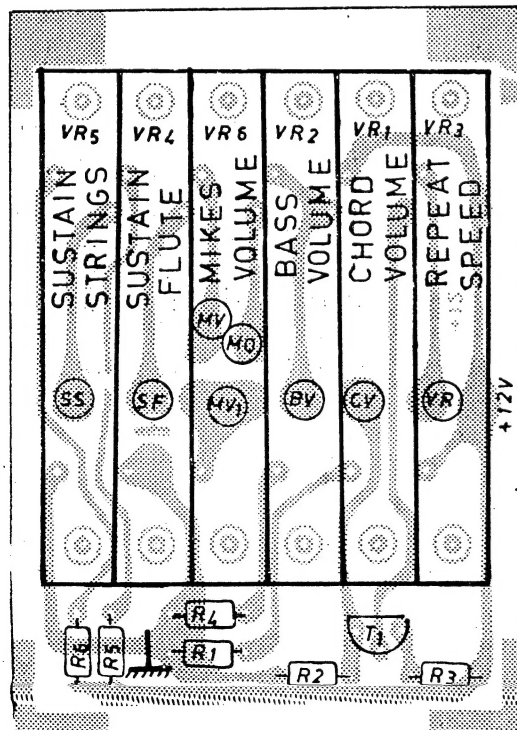
M000623



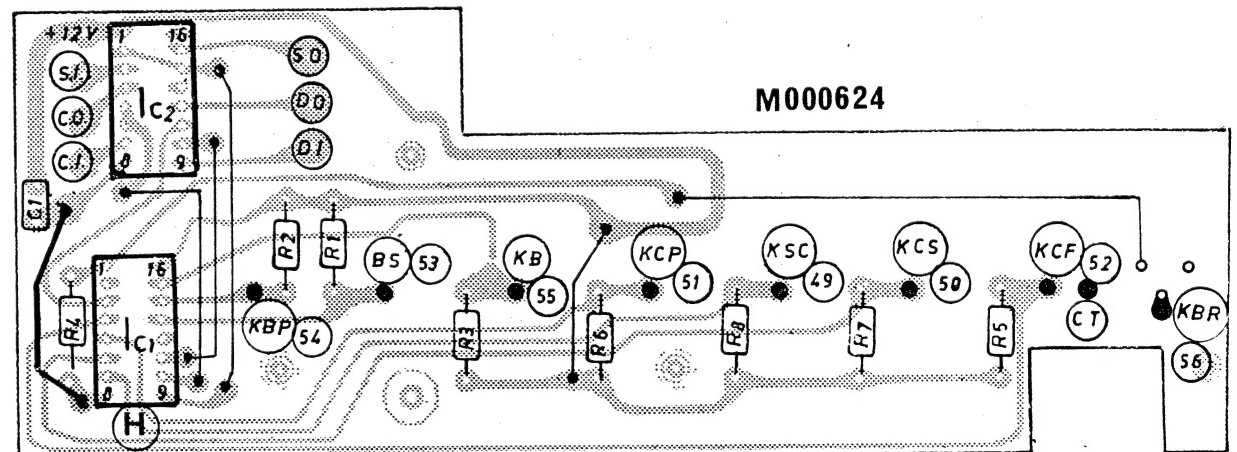
CLAVI CHORD	PIANO	STRINGS	VIOLON. CELLO
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VIBRATO	REPEAT	PERC. LONG.	PERC. 2 2/3'	PERC. 4'	PERC. 8'	FLUTE 2 2/3'	FLUTE 4'	FLUTE 8'	FLUTE 16'
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M000626



M000624



BASS PIANO	SUSTAIN	BASS	CHORD PIANO	SUSTAIN	CHORD STRINGS	CHORD FLUTE	BRUSH
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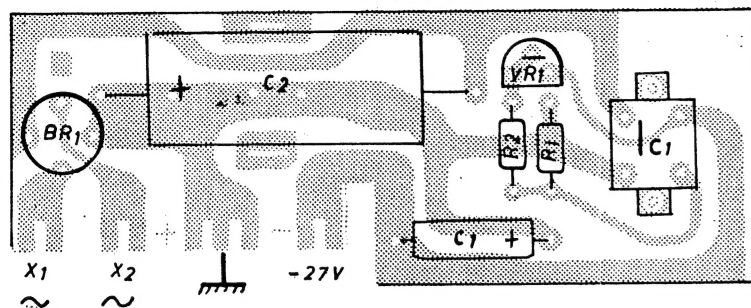


Model
ELKAVOX
77

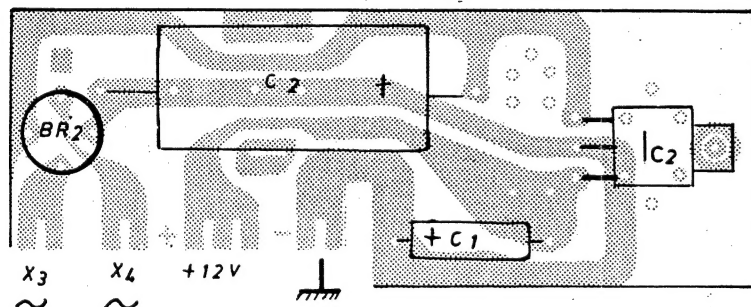
Object
Assembly of
Printed Circuit

Sheet No 24-26
Date 6-9-76

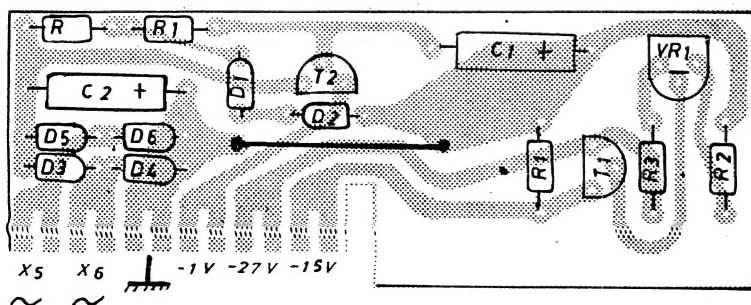
M000485



M000485/A



M000609



M000617

